

Abstract

Directional Display Apparatus

A directional display apparatus, comprising a spatial light modulator comprising an array of pixels and a lens array in which each respective section of the lens array is capable of directing light from a group of pixels aligned with the respective section into nominal viewing windows, is arranged such that each respective section is also capable of directing light from at least one adjacent group of pixels aligned with a section adjacent the respective section into the same nominal viewing windows. This may be achieved by a deflection element, such as a prism element or a hologram, or by each respective section of the lens array having at least one lens surface providing: at least one first region capable of directing light from said group of pixels aligned with the respective section into said nominal viewing windows; and at least one second region capable of directing light from said at least one adjacent group of pixels into the same nominal viewing windows. By mixing light from adjacent groups of pixels, striped visual artefacts are reduced.

5

10